

a catheter shaft having a proximal end, a distal end, a first lumen extending from the proximal end to a first opening, and a second lumen extending from the proximal end to a second opening, the catheter shaft having a length and cross-sectional area selected to allow the catheter shaft to be endovascularly positioned through the subclavian artery and into the ascending aorta;

an expandable member attached to the catheter shaft distal to the first opening and proximal to the second opening and being movable between a collapsed shape and an expanded shape, the expandable member being configured to occlude the ascending aorta in the expanded shape;

a source of oxygenated blood in communication with the first lumen; and

a source of cardioplegic fluid in communication with the second lumen.

51. The system of claim 50 further comprising:

a venous cannula for withdrawing blood from a vein; and

an oxygenator for oxygenating the blood, the oxygenator having an inlet in communication with the venous cannula and an outlet in communication with the first lumen.

52. The system of claim 50 further comprising:

a first occlusion member on the venous cannula for occluding one of the vena cava.

53. The system of claim 52 further comprising a second occlusion member for

occluding one of the vena cava.

54. The system of claim 53 wherein one of the first and second occlusion members is

movable relative to the other of the first and second occlusion members.

55. A method of placing a patient on cardiopulmonary bypass comprising:

introducing a catheter into a subclavian artery, the catheter including a shaft having a first lumen communicating with a first opening and a second lumen communicating with a second opening, and an expandable member attached to the shaft distal to the first opening and proximal to the second opening and being movable between a collapsed shape and an expanded shape;

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